



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁷ : D01F 8/10, A61L 15/22	A1	(11) International Publication Number: WO 00/56959 (43) International Publication Date: 28 September 2000 (28.09.00)
(21) International Application Number: PCT/US00/07408 (22) International Filing Date: 21 March 2000 (21.03.00) (30) Priority Data: 09/273,878 22 March 1999 (22.03.99) US (71) Applicant: AMCOL INTERNATIONAL CORPORATION [US/US]; One North Arlington, 1500 West Shure Drive, Arlington Heights, IL 60004 (US). (72) Inventors: EVANS, Samantha, J.; 3 Grove Street, West Hyde, Lymn Cheshire WA13 0HA (GB). HENDERSON, John, A.; 27 School Lane, Bidston Village, Birkenhead, Merseyside L43 7RD (GB). MITCHELL, Michael, A.; 440 Pheasant Ridge, Lake Zurich, IL 60047 (US). TOMLIN, Anthony, S.; 607 Longacre Lane, Island Lake, IL 60042 (US). (74) Agent: NAPOLI, James, J.; Marshall, O'Toole, Gerstein, Murray & Borun, 6300 Sears Tower, 233 South Wacker Drive, Chicago, IL 60606 (US).		(81) Designated States: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the</i> <i>claims and to be republished in the event of the receipt of</i> <i>amendments.</i>
(54) Title: MULTICOMPONENT SUPERABSORBENT FIBERS (57) Abstract Multicomponent superabsorbent fibers are disclosed. The multicomponent fibers comprise at least one acidic water-absorbing resin and at least one basic water-absorbing resin. Each fiber contains at least one microdomain of the acidic resin in contact with, or in close proximity to, at least one microdomain of the basic resin. Blends of multicomponent superabsorbent fibers with particles of a second water-absorbing resin also are disclosed. Articles containing the multicomponent superabsorbent fibers also are disclosed.		

INTERNATIONAL SEARCH REPORT

Int'l Application No

PCT/US 00/07408

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 D01F8/10 A61L15/22

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 D01F A61L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, A	WO 99 25393 A (AMCOL INTERNATIONAL CORP) 27 May 1999 (1999-05-27) the whole document	1-65
A	WO 98 37149 A (GOLDMAN STEPHEN ALLEN ;PROCTER & GAMBLE (US)) 27 August 1998 (1998-08-27) the whole document	1-65
A	WO 98 24832 A (KIMBERLY CLARK CO) 11 June 1998 (1998-06-11) cited in the application the whole document	1-65

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

18 July 2000

Date of mailing of the international search report

27/07/2000

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Tarrida Torrell, J

INTERNATIONAL SEARCH REPORT

Information on patent family members

Initial International Application No

PCT/US 00/07408

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9925393 A	27-05-1999	US 6072101 A AU 1522199 A ZA 9810461 A	06-06-2000 07-06-1999 17-05-1999
WO 9837149 A	27-08-1998	AU 6322698 A EP 0964894 A NO 993941 A	09-09-1998 22-12-1999 19-10-1999
WO 9824832 A	11-06-1998	AU 5454298 A CN 1239487 A EP 0941274 A HU 9904038 A	29-06-1998 22-12-1999 15-09-1999 28-03-2000